



**UNITED STATES PATENT AND TRADEMARK OFFICE**

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

FEBRUARY 12, 2007

PTAS  
WHITHAM, CURTIS, CHRISTOFFERSON & COOK  
11491 SUNSET HILLS ROAD, SUITE 340  
RESTON, VA 20190

**\*500222057A\***

**\*500222057A\***

UNITED STATES PATENT AND TRADEMARK OFFICE  
NOTICE OF RECORDATION OF ASSIGNMENT DOCUMENT

THE ENCLOSED DOCUMENT HAS BEEN RECORDED BY THE ASSIGNMENT DIVISION OF THE U.S. PATENT AND TRADEMARK OFFICE. A COMPLETE MICROFILM COPY IS AVAILABLE AT THE ASSIGNMENT SEARCH ROOM ON THE REEL AND FRAME NUMBER REFERENCED BELOW.

PLEASE REVIEW ALL INFORMATION CONTAINED ON THIS NOTICE. THE INFORMATION CONTAINED ON THIS RECORDATION NOTICE REFLECTS THE DATA PRESENT IN THE PATENT AND TRADEMARK ASSIGNMENT SYSTEM. IF YOU SHOULD FIND ANY ERRORS OR HAVE QUESTIONS CONCERNING THIS NOTICE, YOU MAY CONTACT THE EMPLOYEE WHOSE NAME APPEARS ON THIS NOTICE AT 571-272-3350. PLEASE SEND REQUEST FOR CORRECTION TO: U.S. PATENT AND TRADEMARK OFFICE, MAIL STOP: ASSIGNMENT SERVICES BRANCH, P.O. BOX 1450, ALEXANDRIA, VA 22313.

RECORDATION DATE: 02/12/2007

REEL/FRAME: 018880/0501  
NUMBER OF PAGES: 3

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).  
DOCKET NUMBER: 01640439AA

**ASSIGNOR:**

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY  
DOC DATE: 01/25/2007

**ASSIGNEE:**

VIRGINIA TECH INTELLECTUAL PROPERTIES, INC.  
2200 KRAFT DRIVE  
SUITE 1050  
BLACKSBURG, VIRGINIA 24060

SERIAL NUMBER: 10595654

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: MULTIBLOCK COPOLYMERS CONTAINING HYDROPHILIC-HYDROPHOBIC SEGMENTS FOR PROTON EXCHANGE MEMBRANE

COPY

O:WHITHAM, CURTIS, CHRISTOPHERSON & COOK COMPANY:11491 SUNSET HILLS ROAD, SU

018880/0501 PAGE 2

ASSIGNMENT SERVICES BRANCH  
PUBLIC RECORDS DIVISION

COPY

## PATENT ASSIGNMENT

Electronic Version v1.1  
Stylesheet Version v1.1

02/12/2007  
500222057

SUBMISSION TYPE:

NEW ASSIGNMENT

NATURE OF CONVEYANCE:

ASSIGNMENT

## CONVEYING PARTY DATA

Name	Execution Date
Virginia Polytechnic Institute and State University	01/25/2007

## RECEIVING PARTY DATA

Name:	Virginia Tech Intellectual Properties, Inc.
Street Address:	2200 Kraft Drive
Internal Address:	Suite 1050
City:	Blacksburg
State/Country:	VIRGINIA
Postal Code:	24060

## PROPERTY NUMBERS Total: 1

Property Type	Number
Application Number:	10595654

## CORRESPONDENCE DATA

Fax Number: (703)787-7557  
*Correspondence will be sent via US Mail when the fax attempt is unsuccessful.*  
Phone: (703)787-9400  
Email: linda@wcc-ip.com  
Correspondent Name: Whitham, Curtis, Christofferson & Cook  
Address Line 1: 11491 Sunset Hills Road, Suite 340  
Address Line 4: Reston, VIRGINIA 20190

ATTORNEY DOCKET NUMBER:

01640438AA

NAME OF SUBMITTER:

Michael E. Whitham

Total Attachments: 2

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CH 540.00 10595654

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### ASSIGNMENT

**WHEREAS**, Virginia Polytechnic Institute and State University, (hereinafter referred to as ASSIGNOR), an institute of higher education organized under the laws of the Commonwealth of Virginia, having an office and principal place of business at 301 Burruss Hall, Blacksburg, Virginia, 24061, is the owner of the entire right, title and interest in and to application for United States Letters Patent, filed on May 2, 2006 as Application Serial No: 10/595,654, in the names of James McGrath, William Harrison and Hossein Ghassemi for Multiblock Copolymers Containing Hydrophilic-Hydrophobic Segments for Proton Exchange Membrane and of the invention therein described; and

**WHEREAS**, Virginia Tech Intellectual Properties, Inc. (hereinafter referred to as ASSIGNEE), a non-stock corporation organized under the laws of the Commonwealth of Virginia and having a principal place of business at 2200 Kraft Drive, Suite 1050, Blacksburg, Virginia, 24060, is desirous of acquiring the entire right, title and interest in, to and under said application and said invention and in, to and under Letters Patent or similar legal protection to be obtained therefore in the United States and in any and all foreign countries,

**NOW, THEREFORE**, for good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, ASSIGNOR hereby sells, assigns and transfers to ASSIGNEE, its lawful successors and assigns, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries and any non-provisional applications to be obtained for said invention by said application or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted; and authorize and request the Commissioner of Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereto, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

**ASSIGNOR** hereby covenants that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

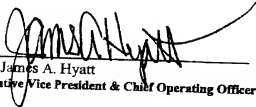
**ASSIGNOR** further covenants that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to ASSIGNOR and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, enforce and defend said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

COPY

VTIP 03.135

Serial Number: 10/595,654

VIRGINIA POLYTECHNIC INSTITUTE AND STATE UNIVERSITY

By:   
James A. Hyatt

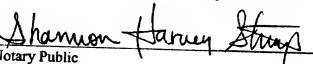
Executive Vice President & Chief Operating Officer

Date 1/25/2007

State of Virginia

County of Montgomery

On January 25, 2007, I do hereby certify that James A. Hyatt  
personally appeared and acknowledged the due execution of the foregoing instrument.

  
Notary Public

My Commission Expires: 8-31-2010

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**UNITED STATES PATENT AND TRADEMARK OFFICE**

UNDER SECRETARY OF COMMERCE FOR INTELLECTUAL PROPERTY AND  
DIRECTOR OF THE UNITED STATES PATENT AND TRADEMARK OFFICE

FEBRUARY 12, 2007

PTAS  
WHITHAM, CURTIS, CHRISTOFFERSON & COOK  
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RESTON, VA 20190

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RECORDATION DATE: 02/12/2007

REEL/FRAME: 018880/0371  
NUMBER OF PAGES: 6

BRIEF: ASSIGNMENT OF ASSIGNOR'S INTEREST (SEE DOCUMENT FOR DETAILS).  
DOCKET NUMBER: 01640439AA

ASSIGNOR:

MCGRATH, JAMES E.

DOC DATE: 11/27/2006

ASSIGNOR:

HARRISON, WILLIAM L.

DOC DATE: 10/27/2006

ASSIGNOR:

GHASSEMI, HOSSEIN

DOC DATE: 10/30/2006

ASSIGNEE:

VIRGINIA POLYTECHNIC INSTITUTE AND  
STATE UNIVERSITY  
301 BURRUSS HALL  
BLACKSBURG, VIRGINIA 24061

COPY

018880/0371 PAGE 2

SERIAL NUMBER: 10595654

FILING DATE:

PATENT NUMBER:

ISSUE DATE:

TITLE: MULTIBLOCK COPOLYMERS CONTAINING HYDROPHILIC-HYDROPHOBIC SEGMENTS  
FOR PROTON EXCHANGE MEMBRANE

MARY BENTON, EXAMINER  
ASSIGNMENT SERVICES BRANCH  
PUBLIC RECORDS DIVISION

COPY

## PATENT ASSIGNMENT

Electronic Version v1.1  
Stylesheet Version v1.1

02/12/2007  
500222048

SUBMISSION TYPE:	NEW ASSIGNMENT										
NATURE OF CONVEYANCE:	ASSIGNMENT										
CONVEYING PARTY DATA											
<table border="1"><thead><tr><th>Name</th><th>Execution Date</th></tr></thead><tbody><tr><td>James E. McGrath</td><td>11/27/2006</td></tr><tr><td>William L. Harrison</td><td>10/27/2006</td></tr><tr><td>Hossein Ghassemi</td><td>10/30/2006</td></tr></tbody></table>		Name	Execution Date	James E. McGrath	11/27/2006	William L. Harrison	10/27/2006	Hossein Ghassemi	10/30/2006		
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<table border="1"><tr><td>Name:</td><td>Virginia Polytechnic Institute and State University</td></tr><tr><td>Street Address:</td><td>301 Burruss Hall</td></tr><tr><td>City:</td><td>Blacksburg</td></tr><tr><td>State/Country:</td><td>VIRGINIA</td></tr><tr><td>Postal Code:</td><td>24081</td></tr></table>		Name:	Virginia Polytechnic Institute and State University	Street Address:	301 Burruss Hall	City:	Blacksburg	State/Country:	VIRGINIA	Postal Code:	24081
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Application Number:	10585654										
CORRESPONDENCE DATA											
Fax Number: (703)787-7557											
Correspondence will be sent via US Mail when the fax attempt is unsuccessful.											
Phone: (703)787-9400											
Email: linda@wcc-ip.com											
Correspondent Name: Whitham, Curtis, Christofferson & Cook											
Address Line 1: 11491 Sunset Hills Road, Suite 340											
Address Line 4: Reston, VIRGINIA 20190											
ATTORNEY DOCKET NUMBER:	01640439AA										
NAME OF SUBMITTER:	Michael E. Whitham										
Total Attachments: 4											
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O: WHITHAM, CURTIS, CHRISTOPHERSON & COOK COMPANY: 11491 JONSET HILLS ROAD, SU

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source=01640439AA\_Assignment1#page4.tif

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VTIP 03.135

Serial Number: 10/595,654

### ASSIGNMENT

WHEREAS, I/we, the below-named inventor(s) (hereinafter referred to as ASSIGNORS) whose residence address is stated below, have invented certain new and useful improvements in an invention entitled:

**Multiblock Copolymers Containing Hydrophilic-Hydrophobic Segments for Proton Exchange Membrane**

for which an application for United States Letters Patent Serial No. 10/595,654 has been filed on May 2, 2006; and

WHEREAS, Virginia Polytechnic Institute and State University, (hereinafter referred to as ASSIGNEE), an institute of higher education organized under the laws of the Commonwealth of Virginia, having an office and principal place of business at 301 Burruss Hall, Blacksburg, Virginia, 24061, is desirous of acquiring the entire right, title and interest in, to and under said application and said invention and in, to and under Letters Patent of similar legal protection to be obtained therefore in the United States and in any and all foreign countries.

NOW, THEREFORE, for good and valuable consideration, including salary or payment for the making of inventions, or employee benefits, the receipt of which is hereby acknowledged, ASSIGNORS hereby sell, assign and transfer to ASSIGNEE, its lawful successors and assigns, the full and exclusive right, title and interest to said invention in the United States and its territorial possessions and in all foreign countries and to all Letters Patent or similar legal protection in the United States and its territorial possessions and in any and all foreign countries and any non-provisional applications claiming the benefit of said application to be obtained for said invention by said application or any continuation, division, continuation-in-part, reexamination, renewal, substitute, extension or reissue thereof or any legal equivalent thereof in a foreign country for the full term or terms for which the same may be granted; and authorize and request the Commissioner of Patents of the United States and any official of any foreign country whose duty it is to issue patents or legal equivalents thereto, to issue same for this invention to ASSIGNEE, its lawful successors and assigns.

ASSIGNORS hereby covenant that no assignment, sale, agreement or encumbrance has been or will be made or entered into which would conflict with this assignment and sale.

ASSIGNORS further covenant that ASSIGNEE will, upon its request, be provided promptly with all pertinent facts and documents relating to said application, said invention and said Letters Patent and legal equivalents in foreign countries as may be known and accessible to ASSIGNORS and will testify as to the same in any interference or litigation related thereto and will promptly execute and deliver to ASSIGNEE or its legal representative any and all papers, instruments or affidavits required to apply for, obtain, maintain, issue, enforce and defend said application, said invention and said Letters Patent and said equivalents thereof in any foreign country which may be necessary or desirable to carry out the purposes thereof.

COPY

VTIP 03.135

Serial Number: 10/595,654

Full name of inventor: James E. McGrath

Residence: 902 Elliott Drive, Blacksburg, Virginia 24060

Signature: James E. McGrath

Date: 11/12/01

State of Virginia

County of Montgomery

On November 27, 2006 I do hereby certify that James E. McGrath  
personally appeared and acknowledged the due execution of the foregoing instrument.

Dora S. Lucas

Notary Public

My Commission Expires: December 31, 2007

Full name of inventor: William L. Harrison

Residence: 1735 Tuckahoe Drive, Riner, Virginia 24149

Signature: \_\_\_\_\_

Date: \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

On \_\_\_\_\_, 2006 I do hereby certify that \_\_\_\_\_  
personally appeared and acknowledged the due execution of the foregoing instrument.

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

COPY

VTIP 03.135

Serial Number: 10/595,654

Full name of inventor: James E. McGrath

Residence: 902 Elliott Drive, Blacksburg, Virginia 24060

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

State of \_\_\_\_\_

County of \_\_\_\_\_

On \_\_\_\_\_, 2006 I do hereby certify that \_\_\_\_\_  
personally appeared and acknowledged the due execution of the foregoing instrument.

\_\_\_\_\_  
Notary Public

My Commission Expires: \_\_\_\_\_

Full name of inventor: William L. Harrison

Residence: 1735 Tuckahoe Drive, Riner, Virginia 24149

Signature: [Signature] Date: 10/27/06

State of Virginia

County of Montgomery

On October 27th, 2006 I do hereby certify that William Harrison  
personally appeared and acknowledged the due execution of the foregoing instrument.

[Signature]  
Notary Public

My Commission Expires: July 31, 2009

COPY

VTIP 03.135

Serial Number: 10/595,654

Full name of inventor: Hossein Ghassemi

Residence: 326 Royal Oak Blvd., Richmond Heights, Ohio 44143

Signature: H. Ghassemi Date: 10/30/2006

State of OHIO  
County of Cuyahoga

On October 30, 2006 I do hereby certify that Hossein Ghassemi  
personally appeared and acknowledged the due execution of the foregoing instrument.

Rochelle B. Stephens  
Notary Public

My Commission Expires: October 20, 2007

ROCHELLE B. STEPHENS  
Notary Public, State of Ohio, Cuy. Cty.  
My commission expires Oct. 20, 2007

COPY